

#### IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: Børressen et al

Serial No. 10/549,610

Confirmation No. 8171

Filed: 19th March 2004

Title: SYSTEM FOR BUILDING WITH

**GLASS BLOCKS** 

Group Art Unit: 3633

Examiner: A, Phi Diu Tran

Atty. Dkt. No.: 06117.0007.PCUS00

#### **DECLARATION UNDER 37 CFR § 1.131**

I the undersigned, do hereby declare as follows:

- 1. I am over eighteen years of age and otherwise competent to make this declaration.
- 2. I am one of the three named inventors of US patent application serial number 10/549,610 entitled System For Building With Glass Blocks.
- 2. I understand that the present application has been rejected based on an earlier US patent by Wright, US 6,823,634. I submit this declaration to demonstrate that the invention claimed in the present Application was conceived and reduced to practice before the November 7, 2002 filing date of Wright.
- 3. At the time of conception and reduction to practice of the claimed invention, I was involved in the development and marketing of systems for glass block wall constructions. Mr Borresen and Mr Olsen were resident in Norway and Mr Zyznowski was resident in Sweden.
- 4. In June 2000, Mr Jon Cato Olsen and Mr Bjorn Oddvar Borresen had filed a patent application in Norway for a method and device for building with glass blocks. On 20<sup>th</sup> June 2001 a PCT patent application was filed and later published as WO02/12651. That system required spacers located between adjacent glass blocks. The blocks were adhered to the spacers using an adhesive. An advantage of that system over earlier systems was that it did not require the use of conventional mortar. At that time, the spacing strips that we used were made of foamed

DM\_EU:9720997\_1

polystyrene and were solid i.e. not hollow. Previously, similar wooden spacers had been used but these were not suited for use in wet areas, such as showers, since the wood could adsorb moisture and swell.

- 5. On 20<sup>th</sup> September 2001, the three named inventors met at the premises of Mr Olsen in Norway to discuss possible improvements to the construction. In particular we had noticed that the existing walls were rather rigid and could break on lateral impact or load by fracture of the spacing strip. We were particularly interested in making a wall construction that could better withstand lateral impact. We also wanted to determine whether it was possible to achieve product accreditation according to the DIN 4103 standard for internal non load-bearing walls. One of the tests we wanted to pass was for a free standing wall supported only at the base and along one side. This test required the wall to withstand a blow by a large object in the form of a 50 Kg sack. At the meeting, we conceived the idea of using a hollow spacing strip.
- 6. In February 2002, we ordered manufacture of an elongate, generally planar spacing strip of plastics material, having upper and lower surfaces forming an outer cross section generally corresponding in shape to an intended spacing between two adjacent blocks in the completed glass block wall construction. The spacing strip comprised a body portion having a first thickness and having a centrally disposed elongate channel on upper and lower surfaces thereof, and flange portions having a second thickness less than the first thickness, the flange portions extending laterally from the body portion. The spacing strip had a generally hollow interior with upper and lower walls and was otherwise as drawn by our draftsman and attached as Exhibit 1. See also attached as Exhibit 2 an invoice from our supplier dated 2002-03-15 (where an English translation of the relevant text has been added). The drawing is dated 2001-10-15 but its dimensions were in fact slightly revised (revision B) on 11th March 2002 as may be understood from Exhibit 3 discussed below. This drawing corresponds to Figure 2 of the present application and also to a design registration submitted in Sweden on 29th October 2001 and published on 30th April 2002 (Exhibit 4). The strip was used to construct a number of glass block walls. For the construction we used a one component polymer adhesive to glue the profile to the blocks. We internally tested the new profile according to the DIN 4103 test on or around April 2002 and found that it met our objective in that the profile did not break on impact as in the previous tests. Nevertheless we found that the vertical weight-bearing capacity was insufficient.

the system further comprising an

- 7. The one-component polymer adhesive that was used for the tests was supplied by Sunchem AB. It was an adhesive of the type that hardens by evaporation of a solvent and comprises groups which compatibilise the polymer with the plastics material of the spacing strip. A product data sheet from 7<sup>th</sup> May 2002 is enclosed as Exhibit 5, identifying this glue as "Quicktech Special Adhesive". An invoice for a consignment dated 2002-03-19 is enclosed as Exhibit 6.
- 8. In order to strengthen the construction still further we decided to adapt the design by adding additional internal reinforcing to the profile to improve the vertical weight bearing capacity. This design was as drawn by my draftsman according to Exhibit 3, which is dated 6<sup>th</sup> November 2002 (Revision C) and led to the embodiment of present claim 4. We internally tested walls constructed of the new profile in November 2002 and were confident that it would fully meet the requirements of the DIN 4103 test.
- 9. On 16th January 2003 the LGA testing institute was requested to conduct the DIN 4103 test on a glass wall constructed using these strips. This required Mr Zyznowski and Mr Borresen to travel to Germany and build a number of glass block walls at the premises of LGA in Wurzburg. The tests took place on 12<sup>th</sup> March 2003 and are documented in videos that are included herewith as Exhibits 7 and 8. The glass block walls constructed using the profile of Exhibit 3 achieved the required standard in the DIN 4103 test. To the best of my knowledge, no other construction system has successfully fulfilled this DIN requirement for walls supported only at the base and one edge.
- On successful completion of the tests, we immediately took the necessary steps to file a patent application claiming the system based on both the profile strip according to Exhibit 1 and also the final version according to Exhibit 3. That application was filed in UK on 20<sup>th</sup> March 2003 as GB0306423.5 and the present application claims priority therefrom. The embodiment according to Exhibit 3 is shown schematically according to Figure 4 and is claimed in claim 4.
- 11. It is clear from the foregoing facts that the invention presently being claimed in US patent application serial number 10/549,610 was both conceived and reduced to practice on or before the date of Exhibits 1 and 2 in March 2002 and well before the date of Exhibit 3 of 6<sup>th</sup> November

2002. I also believe that we have been diligent in filing and prosecuting the application for this invention which was first filed as UK application number 0306423.5 on 20<sup>th</sup> March 2003, subsequently continued as PCT application PCT/EP04/02984 on 19<sup>th</sup> March 2004 and filed in the United States under 35 USC 371 on 20<sup>th</sup> September 2005.

All statements made in this document of my own knowledge are true and all statements made on information and belief are believed to be true. I am aware that willful false statements and the like are punishable by fine or imprisonment, or both (18 U.S.C. § 1001) and may jeopardize the validity of the patent application or any patent issuing thereon.

Respectfully submitted,

Bjorn Oddvar Borresen

Place Date

Lukas Zvznowsk

Fred nikolas 2010-05-28

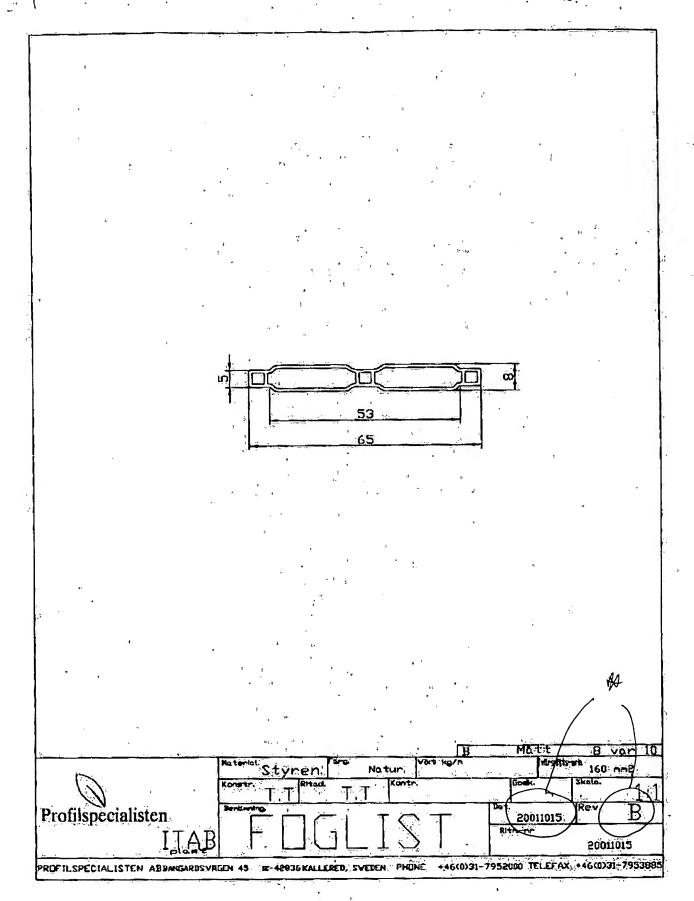
Place

Date

an Cato Olsen

Doto

ace, Date



.424.84.11-3

Profilspecialisten Mölnda	IAB Faktura	ı	, Nwiin :21	ner Sida
		Kundar 1509	Datur	2
everansadtess		QUICKTECH STARTVISION BOX 648 442 17 KUNG	1 180 AB	*
Betatningsvillkor 30 DAGAR:NETTO	Leveransyllikor FRITT FABRIK KALLERI	ĖQ:	Er referens LUKAS ZYZNOWSK	<b>4</b> .
VAT-nr SE556307380701	Leveranalid Leveranss 020305 BIL	ait .	Vår referens TORE THALENIUS	
Innehar F-skattsedel	Förfallodatum 2002	-04-14	Ordernr. 15848	
DEL I VERKTYGSKOSTNAD FOGLIST ENL RITN 20011015 INKL UTFALLSPROV	the extruc	i ding toc	20,000,00	20 000,00
	2646 5200 4010 20000	2444 JS-60	1	
Drojsmålsränta debiteras me Summa 20.000,00 Postadress	d 12,00 % efter forfallod Fürstling Faktavgift	Moms 5,000,00 Telafon/fax	Öresuti	Att betal 25 000,01
Profilspecialisten Molndal AB	BANGARDSVÄGEN 45	031.7952000	49	2-3371

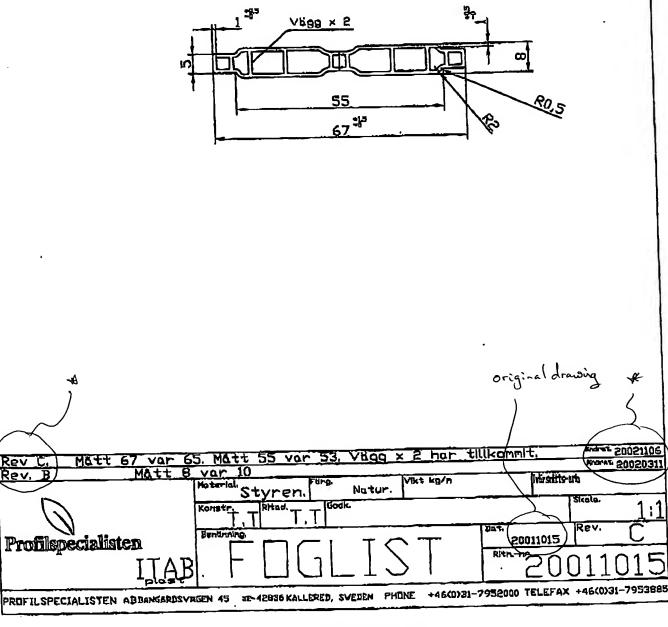
KALLERED

031-7953885

Styrelsens sate: MOLNDAL

BANGARDSVAGEN 45

428 36 KALLERED



Rev



SVERIGE

# MÖNSTERREGISTRERING

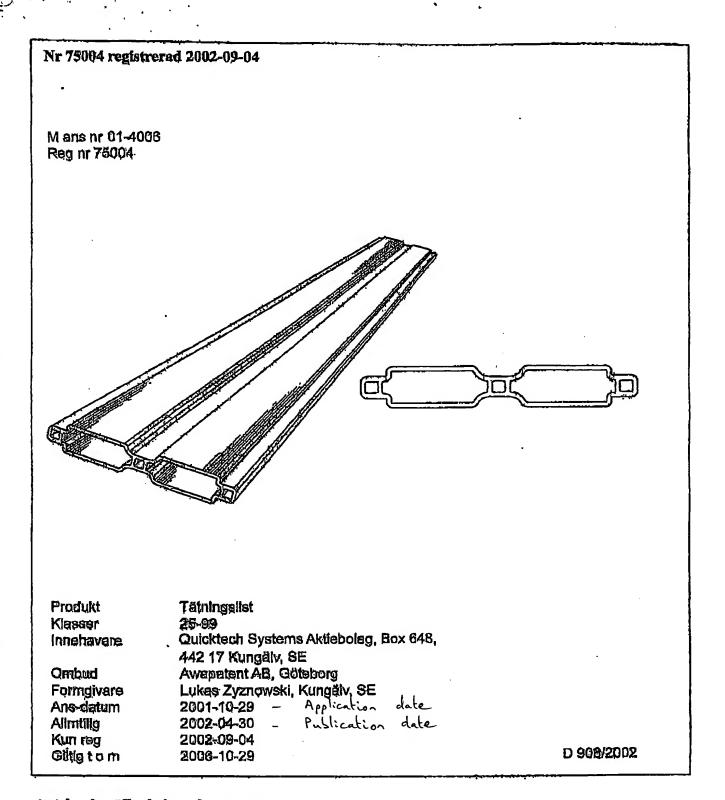
Nummer: 75 004

Registreringens giltighetstid: 2006-10-29

Patent- och registreringsverket har med stöd av mönsterskyddslagen dama dag tagit in omstående mönster i mönsterregistret.

Säderhanun 2002-09-04

Lena Ljusberg



### Att iaktta beträffands förnyelse av mönster

Er registrering gäller under den tid som angivits enligt omstående sida. Mänsterregistreringen kan på begäran förnyas. Den totala registreringstiden kan vara maximalt 25 år.

Ansökan om förnyelse görs skriftligen hos Patent- och registreringsverket (PRV) tidigast ett år före och senast sax månader efter utgången av löpande registreringsperiod. Inom samma tid skall förnyelse- och ev tilläggsavgifter inbetalas, anners avslås ansökningen.

Upplysninger om avgifternes storlek m m kan erhålles hos PRV:s Designenhet, telefon 08-450 20 40.

	MSDS	
	MISDS	A second of the second of the second
	MATERIAL SAFETY DA	TA SHEET
	WAX ZALLES OF LEGIT DA	123
Last changed:	Internal No.:	Replaces date:

Quicktech Special Adhesive

1. IDENTIFICAT	TON OF SUBSTANCE AND GO	WPANY HE SHEET STEET	
Approved for u Approved for le Approved by O			
TRADE NAME	Quicktech Special Adhesive		
CHEM. NAME	One component adhesive		
ART No.	400400		

Producer/importer	Sunchem AB	
Address	Box 69	
Postal code	433 21 PARTILLE	
Country	Š	
Telephone	031/44 73 10	
Fax	031/44 95 81	
Contact pers.	Birgitta Pilquist	
Responsible	Dick Sundström	

#### 2. COMPOSITION/INFORMATION ON INGREDIENTS

No Ingredients	oame .	CAS No.	Conc. (wt%)	Classification
l metylcykloho	nex:	108-87-2	10-15	V,F,11-320-322-
2 petroleum na	phia (light), <0.1% benzens	64742-49-0	10-15	313 Xn,F,N,R11-38- 51/53-65-67
3 petroleum na	phia (heavy), <0,1%benzene	64742-48-9	10-15	Xn,R10-65/66
4 metyletylket		78-93-3	0-1	Xi,F,R11-36-66- 67
5 aceton	٠.	67-64-1	0-5	V,F,11-320-313
Legend: T+=	Very toxic, T=Toxic, C=Combaive, Xn=Har			

#### 3. HAZARDS IDENTIFICATION



Seat sufficient de la faction de la faction

HIGHLY FLAMMABLE. REPEATED EXPOSURE MAY CAUSE SKIN DRYNESS OR CRACKING. VAPOURS MAY CAUSE DROWSINESS AND DIZZINESS.

#### 4. FIRST AID MEASURES

**GENERAL** 

Never give anything to eat or drink to an unconscious peron. If unconscius: Place in stable position on one side. If symptoms persist, call a physician.

INHALATION

Fresh air.

## MATERIAL SAFETY DATA SHEET

Last changed:

Quicktech Special Adhesive

#### SKIN CONTACT

Remove contaminated clothing. Wash the skin with water and soap. Use moisturizing skin cream to replace lost skin moisture.

#### **EYE CONTACT**

Flush well with running water.

#### INGESTION

Drink a couple of glasses of water or milk. Do not induce vomiting. To hospital if strong cough or vomiting occurs, or if larger quantity has been ingested.

#### 5. FIRE-FIGHTING MEASURES

#### **EXTINGUISHING MEDIA**

Extinguish with carbon dioxide, dry chemical or foam. Firemen may use a spread stream of water.

#### IMPROPER EXTINGUISHING MEDIA

Water may only be used by firemen.

#### FIRE AND EXPLOSION HAZARDS

HIGHLY FLAMMABLE! Vapours may form explosive mixtures with air at temperatures below room temperature. Fire will generate dense black smoke. The smoke from the fire contains carbon monoxide, carbon dioxide and hydrocarbons.

#### OTHER INFORMATION

Containers near fire must be moved and/or cooled with water.

#### 6. ACCIDENTAL RELEASE MEASURES

#### PERSONAL PRECAUTIONS

Refer to protective measures listed in sections 7 and 8. Risk of ignition and explosion.

#### **ENVIRONMENTAL PRECAUTIONS**

Do not allow to enter sewers or drains.

#### METHODS FOR CLEANING UP

Collect spillage in suitable containers and deliver to waste treatment plant.

#### 7. HANDLING AND STORAGE

#### HANDLING PRECAUTIONS

Provide good ventilation. When using do not eat, drink or smoke

Store in accordance with regulations for flammable materials. Store in tightly closed original container.

#### 8. EXPOSURE CONTROL/PERSONAL PROTECTION

Ingredients name	CAS no.	TLV value	TLV year
petroleum naphta (light), <0.1% benzene	64742-49-0	50,0 ppm	1996
motyletylketon	78-93-3	≤0,0 ppm (NGV)	1996
• •	67-64-1	250.0 ppm	1996
aceton	07-5-7		1

#### EXPOSURE CONTROL

All work with dangerous chemical products must be done in a well ventilated and for this handling approved spaces. Eliminate all possible ignition sources. BE CAREFUL WITH SMOKING, FIRE, SPARKS AND WELDING.

#### RESPIRATORY PROTECTION

Gas mask with filter A (brown) may be necessary.

#### HAND PROTECTION

:

#### MSDS

## MATERIAL SAFETY DATA SHEET

Last changed:

Internal No.:

Replaces date:

#### Quicktech Special Adhesive

For prolonged or repeated skin contact use suitable protective gloves.

#### PROTECTIVE CLOTHING

Protective clothing as needed.

#### 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State:	Pulty.			
Colour	See specific information			
Odour:	Organic solvents.			
Solubility:	Soluble in :			
Melting point/cange:	<0°C	Density:	1.12 kg/m3	
Expl. limit LEL-UEL%:	0.6-7	Solubility in water:	insoluble	
Vapour pressures		Saturation conc.:		
Decomposition temp.:		Rel. dons. sat. air (cir=1):		
pH solution:		Boiling point/range:	. 57°C	
Plash point:	2°C	pH concentrate:		
Molar weight:		Viscosity:		
Ignition temp.:	>200°C	Odour threshold value:		
Rel.vap.dens.(nir=1):		Rel. evap. velocity:		
Air reactive:		Water reactive:		

٠. : ٠

#### 10. STABILITY AND REACTIVITY

#### STABILITY

Stable with normal handling.

#### HAZARDOUS DECOMPOSITION PRODUCTS

No decomposition products if used as directed. Fire causes formation of: Carbon monoxide (CO). Hydrocarbons.

#### 11. TOXICOLOGICAL INFORMATION

GENERAL

Below mentioned symptoms are valid for the solvents included in the product.

#### INHALATION

Headache. Indisposition. Fatigue. Dizziness. Narcotic effect (at high concentration).

### SKIN CONTACT

Redness. Defats the skin; may cause cracking and dermatitis.

#### **EYE CONTACT**

Smarting.Redness.Passing irritation.

#### INGESTION

Causes similar symptoms as by inhalation. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

#### 12. ECOLOGICAL INFORMATION

#### **ECOTOXICITY**

petroleum naphta (light), <0,1% benzene: R51/53 Toxic to aquatic organisms; may cause long-term adverse effects in the aquatic environment.

#### OTHER INFORMATION

Quantitative data on ecological effects for this product are not available. Do not allow discharge into drinking water reservoirs, drain or ground.

#### 13. DISPOSAL CONSIDERATIONS

#### **MSDS**

#### MATERIAL SAFETY DATA SHEET

Last changed:

Internal No.:

Replaces deter

Quicktech Special Adhesive

#### GENERAL REGULATIONS

Classified as hazardous waste. If waste cannot be recycled or destructed in your own facilities (Note: permission) contact a contractor approved by the authorities.

#### 14. TRANSPORT INFORMATION

1.44 (

PROPER SHIPPING	NAME			
Toll, reg, no:				
HAZCHEM				
(Y=black,y=white);				
		ADR (Road)		
UN No.	1133	Dang. goods	Yes	
Class	3,5(c)	Label	3	
Haz. 1D No.	33	Marge No.	2301	
		RID (Railway)		
UN No.	1133	Dang. goods	Yes	
Class	3.5(c)	Label	3	
Hoz. ID No.	33			
		IMDG(Sea)		
UN No.	1133	Dang, goods	Yes	
Class	3.5(c)	Lahel	3	
Pkg Gr		EmS	3-05	
MFAG	330	Marine Pollutant	-	
Sub Risk		Page	3174	
		IATA(Air)		
UN No.	1133	Dang. goods	Yes	
Class		Sub Risk		
Label		Pkg Gr		

#### 15. REGULATORY INFORMATION

Classif.;



#### R-PHRASES

R11 - Highly flammable. R66 Repeated exposure may cause skin dryness or cracking.R67 Vapours may cause drowsiness and dizziness.

#### S-PHRASES

S16-Keep away from sources of ignition - No smoking, S51-Use only in well ventilated areas. S62 If swallowed, do not induce vomiting: seek medical advice immediately and show this container or label.

#### 16. OTHER INFORMATION

: 1 i 1 i

ISSUED:

07/05/02

#### **VENDOR NOTES**

R320/322 May be harmful by inhalation and if swallowed.R313 Dries out the skin. R51/53 Toxic to aquatic organisms; may cause long-term adverse effects in the aquatic environment. R65 Harmful: may cause lung damage if swallowed.R66 Repeated exposure may cause skin dryness or cracking. R67 Vapours may cause drowsiness and dizziness.R36 Irritating to the eyes. R320 May be harmful by inhalation.

MSDS

MATERIAL SAFETY DATA SHEET

Last changed: Internal No.: Replaced date:

Quicktech Special Adhesive

### Sunchem AB



Leveransadress

Quicklech System AB Box 648

Orderni 16082:

Leveransvillkor

Transportsätt

**FAKTURA** 

Fakturanr ' F16256 Kundkod

5550

Datum 020319

Oulcktech System AB Box 648: 442 17 Kungalv

Ert ordernr

Er referens

Säljare

ARTIKELKOD	SPECIFIKATION	ANTAL:	A-PRIS	BELOPP
600014	Quicktech Patron Europa	10000 Styck	2.50	25,000.00
600012	Quicktech Patron Norge	10000 Styck	2:50	25.000.00
500435	Arbete Luffilere.	1 Styck	500.00	500.00
.500435	Framtagning av tilmer. diverse:designarbete	Styck	5:300:00	5,300,00

Ván lőjelag ar análujettill REPA

BETALNINGSVILLKOR: FÖRSKOTTSLIKVID

FÖRFALLODAG.

020319

Efter förfallodagen debiteras

dröjsmålsränta med

14.00 %

Telefax

Momsreg.nr/F-

Kredit

Ric.

Netto:

Moms:

Exp.avg:

Öresutjämning:

ATT BETALA:

Frakt:

Bankgir

Postgiro; SE556168967901 364-8151 442-56 6

55,800:00

13,950.00

69,750.00

00.0 00.0

0.00

Postadress" Bcx 69; 433 21 Partille Besöksadress

Telefon Benjaminsväg 10 031-447310 031-449581